1. A mask with sensors for monitoring a patient during gas delivery comprising:

a mask having a perimeter for contacting the face of a patient,

at least one sensor on the mask to sense at least one parameter indicating a state of the patient,

leads in the mask connected to the at least one sensor for transmission of data,

a means for transmitting data from the mask,

a hose connector on the mask for attachment of a hose for delivery of gas to the mask.

2. A mask with sensors for monitoring a patient during gas delivery as in claim 1 wherein,

the means for transmitting data from the mask comprises a mask interface connector for connecting the leads in the mask to a cable.

3. A mask with sensors for monitoring a patient during gas delivery as in claim 1 comprising,

a means for providing power to the mask to operate the sensors.

4. A mask with sensors for monitoring a patient during gas delivery as in claim 3 wherein,

the means for providing power to the mask to operate the sensors comprises a mask interface connector connecting a power source lead to a lead in the mask for transmitting power to a sensor and;

the means for transmitting data from the mask comprises a mask interface connector for connecting the leads in the mask to a cable.

5. A mask with sensors for monitoring a patient during gas delivery as in claim 3 wherein,

the means for providing power to the mask to operate the sensors comprises a battery attached to the lead in the mask for transmitting power to a sensor and;

the means for transmitting data from the mask comprises a telemetry device.

6. A mask with sensors for monitoring a patient during gas delivery as in claim 1 wherein,

the sensors on the mask are selected from the group consisting of, EEG, EMG, EOG, ECG, PTT, temperature, surface blood pressure, pulse, blood oxygen level, light, breathing rate, breathing volume, gas flow, nasal air flow, oral air flow, position, activity sensors, mask leakage, mask pressure, eye movement, microphones, gas pressure, patient recycled air detection, patient back gas and movement.

7. A mask with sensors for monitoring a patient during gas delivery as in claim 1 wherein,

at least one sensor on the perimeter of the mask makes contact with the skin of the patient for measuring a parameter.

8. A mask with sensors for monitoring a patient during gas delivery as in claim 7 wherein,

the perimeter of the mask has a soft pliable material for contacting the face of the patient.

9. A mask with sensors for monitoring a patient during gas delivery as in claim 8 wherein,

the material has at least one recess with a sensor in the recesses for contacting the skin of the patient.

10. A mask with sensors for monitoring a patient during gas delivery as in claim 9 wherein,

leads in the pliable material are connected to the at least one sensor for power and data connections therewith.

11. A mask with sensors for monitoring a patient during gas delivery as in claim 8 wherein,

a carbon embedded rubber material provides electrical contact between the sensor in the soft pliable material and the patient's skin.

12. A mask with sensors for monitoring a patient during gas delivery as in claim 1 wherein,

the mask has at least one strap attached to the mask to hold the mask in place.

13. A mask with sensors for monitoring a patient during gas delivery as in claim 1 wherein,

the mask has at least one strap attached to the mask to hold the mask in place and the strap has at least one sensor wired to the mask for monitoring the patient.

14. A mask with sensors for monitoring a patient during gas delivery as in claim 1 wherein,

the mask has a cap attached to the mask to hold the mask in place.

15. A mask with sensors for monitoring a patient during gas delivery as in claim 1 wherein,

the mask has a cap with at least one sensor attached to the cap, the sensor leads on the cap connected to the leads in the mask for monitoring the patient.

16. A mask with sensors for monitoring a patient during gas delivery as in claim 13 wherein,

the strap includes a chin strap.

17. A mask with sensors for monitoring a patient during gas delivery as in claim 1 wherein,

at least one sensor in the chin strap for measuring chin EMG

18. A mask with sensors for monitoring a patient during gas delivery as in claim 13 wherein,

the straps include a head strap having a sensor for measuring EEG.

19. A mask with sensors for monitoring a patient during gas delivery as in claim 15 wherein,

the cap includes sensor for measuring EEG.

20. A mask with sensors for monitoring a patient during gas delivery as in claim 13 wherein,

the strap includes an ear strap having an oxygen saturation sensor applied to the ear of the patient.

21. A mask with sensors for monitoring a patient during gas delivery as in claim 1 wherein,

a thermal sensor on a portion of the mask detects changes in temperature on that portion of the mask.

22. A mask with sensors for monitoring a patient during gas delivery as in claim 21 wherein,

the mask has a thermally conductive material to which the thermal sensors are thermally coupled.

23. A mask with sensors for monitoring a patient during gas delivery as in claim 1 wherein,

a thermally sensitive material on the mask proximate the patient's nose detects temperature variations for nasal breathing detection.

24. A mask with sensors for monitoring a patient during gas delivery as in claim 1 wherein,

a thermally sensitive material on the mask proximate the patient's mouth detects temperature variations for oral breathing detection.

25. A mask with sensors for monitoring a patient during gas delivery as in claim 1 wherein,

a thermally sensitive material on the mask proximate mask perimeter detects temperature variations for leak detection.

26. A mask with sensors for monitoring a patient during gas delivery as in claim 21 wherein,

the thermally sensitive material comprises a thermistor.

27. A mask with sensors for monitoring a patient during gas delivery as in claim 21 wherein,

the thermally sensitive material comprises a thermocouple.

28. A mask with sensors for monitoring a patient during gas delivery as in claim 21 wherein,

the thermally sensitive material comprises a coating on the mask.

29. A mask with sensors for monitoring a patient during gas delivery as in claim 21 wherein,

the thermally sensitive material portion of the mask comprises an internal surface portion of the mask.

30. A mask with sensors for monitoring a patient during gas delivery as in claim 21 wherein,

the thermally sensitive material portion of the mask comprises an external surface portion of the mask.

31. A mask with sensors for monitoring a patient during gas delivery as in claim 21 wherein,

the thermally sensitive material portion of the mask comprises a portion within the mask material.

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